

**REMARKS**

This Amendment is filed in response to the non-final Office action mailed March 25, 2004. All objections and rejections are respectfully traversed. Reconsideration of the application, as amended, is respectfully requested.

Claims 1-3 and 5-20 are pending. Applicants have added new claims 11-20, which comprise similar subject matter previously presented in original claims 1-10. No new matter is being added.

At paragraphs 1-5 in the Office action, the Examiner has restricted the pending claims into two groups: claims 1-3 and 5-10 ("Group I") and claim 4 ("Group II").

At paragraphs 6-7 in the Office action, it is acknowledged that in a telephone conversation with the Examiner on March 16, 2004 an attorney of record, Sidney Johnston, provisionally elected without traverse to prosecute the invention of Group I, i.e., claims 1-3 and 5-10.

The Applicants affirm the noted election of Group I, and hereby cancel, without prejudice, the original claim 4 from further consideration in the instant application. However, the Applicants expressly reserve their right to prosecute the withdrawn claim 4 in a subsequent application, which may be, *inter alia*, a continuation, continuation-in-part, divisional or reissue patent application.

At paragraph 8 in the Office action, claim 6 is rejected under 35 U.S.C. 112, first paragraph, as a single means-plus-function claim. In response, claim 6 has been modified

to recite a computer network which comprises more than one “means for” element. Consequently, the Applicants respectfully submit that the 35 U.S.C. 112 rejection of claim 6, as amended, should be removed.

At paragraph 9 in the Office action, claim 8 is rejected under 35 U.S.C. 112, second paragraph for lacking an antecedent basis for “the process of claim 7.” The Applicants have amended claim 8 to properly depend on “the method of claim 7,” thereby obviating the pending 35 U.S.C. 112, second paragraph rejection.

At paragraph 10 in the Office action, claim 10 is rejected under 35 U.S.C. 101 because the invention is allegedly directed to non-statutory subject matter of “Electromagnetic signals having instructions.”

Claim 10 recites:

Electromagnetic signals propagated over a computer network, *said electromagnetic signals having instructions for execution by a processor for practice of the method of claim 7.*

Applicant respectfully points out that MPEP 2106 IV, B. 1. (c) (Page 2100-14 of the Eighth Edition) states:

“Natural Phenomena Such as Electricity and Magnetism  
...However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature.”

Applicant respectfully points out that the form of Claim 10 meets the “practical application” requirement of MPEP 2106 IV, B, 1 (c) because the claim is to: “*said elec-*

*tromagnetic signals having instructions for execution by a processor for practice of the method of claim 7*", and then the method is that spelled out in method claim 7.

Accordingly, Applicant respectfully urges that Claim 10 meets all statutory requirements of 35 U.S.C. 101, particularly as further set out in MPEP 2106 IV, B, 1 (c).

At paragraph 11 in the Office action, claims 1-3 and 5-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,628,661 to Goldman et al. (hereinafter "Goldman"). The Applicants respectfully traverse these rejections for at least the reasons set forth below.

The present invention, as set forth in representative claim 1, comprises in part:

A layer 2 switch, comprising:

***a plurality of ports, at least one port of said plurality of ports capable of being set to a status of root guard protected (RG status);***

first circuits for running the spanning tree protocol (STP) in said layer 2 switch, said STP capable of selecting said at least one port as either a designated port or as a root port;

***second circuits for running root guard protocol, and said root guard protocol determining whether or not a port set to RG status has been selected by STP as a root port; and,***

***blocking circuits to set said at least one port into blocked status, said blocking circuits setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port.***

Goldman discloses a spanning-tree recovery technique in which a network comprises a "network core," i.e., a high bandwidth portion of the network, and a plurality of switches coupled to the network core. See Goldman, Col. 3, lines 17-21. The spanning tree protocol (STP) in Goldman first selects a root switch within the network

core. Then, a distance-to-core measurement is determined for each switch in the network, where switches within the core have distance-to-core values equal to zero and switches outside the core are associated with non-zero values. See Col. 6, lines 5-17. Each switch's distance-to-core value is stored in a priority sub-field 41 of an identifier 40 associated with the switch. See Fig. 4.

The switches in Goldman periodically broadcast their distance-to-core values to one another using a "heartbeat protocol." See Col. 6, lines 29-47. After the distance-to-core values have been propagated, each switch identifies its root port in the STP. Specifically, a switch's root port is a port connected to another switch having a lower distance-to-core value. See Col. 7, lines 43-48. In the event of a network failure, a switch in Goldman automatically selects a new root port, based on the disseminated distance-to-core values, without having to re-execute the conventional STP. See Col. 7, line 62 through Col. 8, line 11.

The Applicants respectfully urge that Goldman does not teach or suggest *at least one port of said plurality of ports capable of being set to a status of root guard protected (RG status)... determining whether or not a port set to RG status has been selected by STP as a root port... setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port*, as recited in Applicants' claim 1.

First, Goldman does not contemplate at least one port capable of being set to a status of root guard protected, as recited in Applicants' claim 1. The Office action re-

peatedly equates the Applicants' claimed RG status with Goldman's non-zero priority values, i.e., non-zero distance-to-core values (e.g., "a priority value greater than zero is interpreted as root guard protected status"). The Applicants respectfully submit that such an equivalence is improper.

The Applicants' claimed RG status is a *port-level* status, and is therefore assigned on a per-port basis. That is, the invention explicitly recites "at least one port of said plurality of ports capable of being set to a status of root guard protected." In contrast, the non-zero priority values in Goldman, which were equated with Applicants' claimed RG status, are assigned on a per-switch basis. Specifically, each switch in Goldman is assigned to a corresponding distance-to-core value which is stored in the switch's priority sub-field 41. See Goldman, Col. 6, lines 29-37. Each priority value in Goldman is thus a *switch-level* value and not a port-level value. Accordingly, the Applicants respectfully submit that Goldman's switch-level priority values cannot anticipate or render obvious the Applicants' claimed port-level RG status.

Second, Goldman does not teach or otherwise suggest blocking a port based on whether the port is "**both** in root guard protected status and selected by STP as a root port," as recited in Applicants' claim 1. In the event of a network failure, a switch in Goldman may block traffic through its root port and reconfigure another one of its ports to replace the failed root port. See Goldman, Col. 7, line 62 through Col. 8, line 11. Therefore, the failed port in Goldman is blocked based solely on whether that port was previously selected by STP as a root port. In contrast, the Applicants' claim 1 explicitly


recites blocking a port in response to that port being selected by STP as a root port and additionally in response to that port being in root guard protected status. Because Goldman does not consider the port's RG status, Goldman cannot teach or suggest blocking a port that is both in root guard protected status and selected by STP as a root port, as recited in Applicants' claim 1.

For the foregoing reasons, Applicants respectfully submit that independent claim 1 is allowable over the art of record. Furthermore, because claims 2-3 and 5-10 comprise the same or similar patentable subject matter as independent claim 1, Applicants respectfully submit that these claims are also allowable for at least the same reasons.

Accordingly, Applicants submit that all pending claims are believed to be in condition for allowance, and early favorable action is respectfully requested.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



Stephen E. Kabakoff  
Reg. No. 51,276  
CESARI AND MCKENNA, LLP  
88 Black Falcon Avenue  
Boston, MA 02210-2414  
(617) 951-2500